



SESSION IA | HEALTHCARE DISPARITIES: TYPE 2 DIABETES & BREAST CANCER

FAES Classroom 3, Bldg. 10

Tuesday, September 12th, 2017 | 1:15-2:45 p.m.

Moderated By: Janetta Lun, PhD

Joshua J. Joseph, MD

Dr. Joshua Joseph is an assistant professor of medicine in the Division of Endocrinology, Diabetes, and Metabolism at the Ohio State University Wexner Medical Center. He received his B.S. in biology from Morehouse College in 2003 and his M.S. from Boston University School of Medicine in 2009, during which time he spent 2 years in the National Institutes of Health (NIH) Medical Research Scholars Program. He completed his residency and was on faculty at Yale University School of Medicine in 2013, prior to completing his endocrinology fellowship as the Christopher D. Saudek M.D. fellow in diabetes research at Johns Hopkins University School of Medicine in 2016. Dr. Joseph's research focuses on understanding risk factors for the development of type 2 diabetes in diverse populations. His group examines the role of the renin-angiotensin-aldosterone system and the hypothalamic-pituitary-adrenal axis in the development of diabetes using longitudinal observational cohorts. Additionally, he has been exploring racial/ethnic differences in the association of modifiable lifestyle factors in the development of diabetes using NIH-funded, multi-ethnic observational cohorts. The hypothesis generated using epidemiological approaches is used to design and execute detailed metabolic clinical studies to uncover explanatory mechanisms as potential targets for diabetes preventive interventions.

Talk Title: The Role of Modifiable Lifestyle Factors and the Renin-Angiotensin-Aldosterone System in Diabetes Among African Americans

Lisa Scarton, PhD

Dr. Lisa Scarton, a tribal member of the Choctaw Nation of Oklahoma, is a post-doctoral associate at the University of Florida College of Nursing. A Jonas Nurse Leader Scholar, she received her Ph.D. from Indiana University in Indianapolis, IN, where her research with family caregivers of persons with type 2 diabetes underscored the importance the entire family plays in diabetes management. Currently, Dr. Scarton's research focuses on family interventions for American Indians and Alaska Natives with type 2 diabetes. Dr. Scarton has disseminated her work in nursing- and diabetes-focused journals, as well as through presentations at local, regional, and national conferences. Dr. Scarton led an initiative at the University of Florida Diabetes Institute that built collaborative relationships with key stakeholders and explored ways to reduce diabetes health disparities in American Indian and Alaska Native communities in Florida and adjacent regions. Dr. Scarton currently serves on the University of Florida College of Nursing Diversity and Inclusion Advisory Board and previously served as board member and chair for the American Indian Center of Indiana.

Talk Title: Type 2 Diabetes Prevention and Management: A Multi-Generational Intervention for American Indian and Alaska Native Families

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Tuesday, September 12th, 2017 | 1:15-2:45 p.m.

Faustine Williams, PhD, MPH, MS

Dr. Faustine Williams is a trained transdisciplinary researcher who focuses on cancer prevention and control and health disparities. Dr. Williams is currently an assistant professor at East Tennessee State University (ETSU) College of Public Health Department of Health Services Management and Policy where she conducts research in cancer health disparities. Prior to ETSU, she was a research associate at Washington University School of Medicine in St. Louis, MO, where she led the Breast Cancer Disparities workgroup. Dr. Williams' research interests are in inter and intra health disparities in chronic disease and the reduction and/or elimination of disparities in health. Specifically, she is interested in how access to health care services impacts breast cancer diagnosis, treatment, and survival, as disparities exist across population subgroups and geographic areas. Her long-term goal is to conduct transdisciplinary research to identify the causal mechanisms of disparities in cancer and other chronic diseases in minority, disadvantaged, and underserved populations, such as those in central Appalachia. She also seeks to find potential leverage points for reducing such health disparities. Dr. Williams has published her work in several peer-reviewed scientific journals and presented studies at many domestic and international conferences.

Talk Title: Using Community-Based System Dynamics and Storytelling to Improve Breast Cancer Outcomes: Overarching Conceptual Framework

Timiya S. Nolan, PhD, RN, ANP-BC

Dr. Timiya Nolan is a postdoctoral researcher at Ohio State University (OSU). Dr. Nolan is a three-time graduate of the University of Alabama at Birmingham School of Nursing (B.S.N. in 2008, M.S.N. in 2011, Ph.D. in 2016). Her research interests center on the study of cancer survivorship health disparities and development of age- and culturally sensitive interventions. Particularly, she is interested in understanding and bettering the survivorship of a target population of young African American breast cancer survivors. Dr. Nolan's predoctoral work provided formative data for the initial adaptation of a targeted quality of life intervention for the target population. Currently, Dr. Nolan is conducting community-engaged work to further adapt the intervention. Her future work will pilot test the intervention, followed by a large, randomized control trial to evaluate effectiveness. Dr. Nolan is thankful for funding from an American Cancer Society Doctoral Degree in Cancer Nursing Scholarship (2015-2016), Komen Graduate Traineeship in Disparities Research (2015-2016), Jonas Nurse Leadership Scholarship (2014-2016), and Next Gen James Ambassadors Small Grant (2017). She hopes that this work leads to reduction of survivorship health disparities through translation of research findings to practice and policy.

Talk Title: "Feeding" Young African American Breast Cancer Survivors with a Quality of Life Intervention

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CANCER**

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Tuesday, September 12th, 2017 | 1:15-2:45 p.m.**Zeynep Madak-Erdogan, PhD**

Dr. Zeynep Madak-Erdogan is an assistant professor of nutrition and the Director of the Women's Health, Hormones, and Nutrition lab at the University of Illinois–Urbana Champaign (UIUC). She received her B.S. degree in molecular biology and genetics from Bilkent University in 2002. After completing her Ph.D. and postdoctoral studies on mechanisms of estrogen receptor action, Dr. Madak-Erdogan joined the Department of Food Science and Human Nutrition at UIUC in 2014. Her lab uses systems biology approaches to understand how nutrients and hormones impact metabolic health and breast cancer outcomes and to identify biomarkers and associated molecular mechanisms driving disease in pre- and postmenopausal women. In addition to mentoring several undergraduate and graduate students, she has taught courses in the areas of diet, nutrition and cancer, nutrition and women's health, and toxicology. She has received several awards, including the National Institutes of Health National Institute of Environmental Health Sciences Pre- and Postdoctoral Research Training Program in Endocrine Developmental and Reproductive Toxicology Fellowship, the Endocrine Society's Women in Endocrinology Young Investigator Award, and the American Society of Nutrition's Mary Swartz Rose Young investigator Award.

Talk Title: Development of multi-scale analysis methods to understand role of extranuclear initiated estrogen receptor in metabolic disease and breast cancer

SESSION IB | DEVELOPMENT & DISEASE: GENOMIC & COMPUTATIONAL APPROACHES

FAES Classroom 6, Bldg. 10

Tuesday, September 12th, 2017 | 1:15-2:45 p.m.

Moderated By: Justine Buschman

Pranidhi Sood, PhD

Dr. Pranidhi Sood earned her bachelor's degree in chemical engineering from Princeton University. Following a short stint as an engineer at a biotech company in New Jersey, she joined New York University (NYU) for graduate school. There, she trained in various aspects of computational biology and studied two problems. The first project focused on developing algorithms to study miRNA regulation in human tissues in the Rajewsky lab. When she left NYU for Berlin, she joined the lab of Edo Kussell. In his lab and in collaboration with Claude Desplan, she studied the role of stochastic gene expression in the development of a model system, the fruit fly eye. After becoming fascinated with the use of quantitative approaches to study mechanisms of cellular patterning, Dr. Sood joined lab of Wallace Marshall at the University of California–San Francisco as postdoctoral scholar supported by the American Cancer Society. In the Marshall lab, she is using a combination of quantitative and cell biology approaches to study regeneration and wound healing at the scale of a cell. Dr. Sood is working to develop a new model system to study single cell regeneration, the giant ciliate, *Stentor coeruleus*. This exciting system is sure to reveal fundamental and universal properties of regeneration and wound healing.

Talk Title: Transcriptional Dynamics of Single-Cell Regeneration in *Stentor coeruleus***Uduak George, PhD**

Dr. Uduak George holds a master's degree in computational mathematics from Brunel University in West London, United Kingdom, and a Ph.D. in mathematics from University of Sussex in Brighton, United Kingdom. She had her postdoctoral research training at University of Wisconsin-Milwaukee and North Carolina State University. During her postdoctoral research training, she was mentored by Zeyun Yu and Sharon Lubkin. In 2015, she was an assistant professor of mathematics at the University of Louisiana-Monroe. In 2016, she moved to the University of Georgia College of Engineering where she is currently a limited-term assistant professor. Her research focuses on using mathematical and computational methods to study biological processes. She has developed computational models to study biological cell movement, calcium signaling in cardiac myocytes, and lung inflammation. Her current research focuses on identifying the mechanisms that influence the development and physiological functioning of the lung.

Talk Title: Computational modeling of embryonic lung branching

SESSION IB | DEVELOPMENT & DISEASE: GENOMIC & COMPUTATIONAL APPROACHES

FAES Classroom 6, Bldg. 10

Tuesday, September 12th, 2017 | 1:15-2:45 p.m.**Angela Brooks, PhD**

Dr. Angela Brooks is an assistant professor of Biomolecular Engineering at University of California–Santa Cruz. She was a postdoctoral fellow at the Dana-Farber Cancer Institute and the Broad Institute in the laboratory of Dr. Matthew Meyerson. She was a Merck Fellow of the Damon Runyon Cancer Research Foundation, and she also received the Dale F. Frey Award for Breakthrough Scientists. She received her Ph.D. in molecular and cell biology with a designated emphasis in computational and genomic biology at University of California–Berkeley with Dr. Steven Brenner. Dr. Brooks' research group focuses on identifying cancer genome alterations that disrupt gene regulation, particularly through the regulation of RNA splicing. They are developing computational approaches to analyze genome and transcriptome sequencing data and developing high-throughput experimental approaches to characterize the functional impact of cancer variants.

Talk Title: High-throughput and full-length characterization of transcript isoforms to investigate cancer-associated mutations

Daniel Liefwalker, PhD

Dr. Daniel Liefwalker's is post-doctoral scholar at Stanford Medicine where he studies oncology. He received his B.S. in biochemistry and biophysics, with minors in chemistry and toxicology, at Oregon State University. Dr. Staci Simonich supervised his undergraduate research using analytical chemistry to detect pesticides in remote alpine regions in various media, such as air, fish, and moose. He remained at Oregon State for his Ph.D. work in mechanistic toxicology, mentored by Dr. Siva Kolluri. His graduate studies included the structural characterization of the aryl hydrocarbon receptor (AhR) and the design of small molecule screens to identify and characterize agonists that activate tumor suppressive functions of the AhR. Dr. Dean Felsner supervises Dr. Liefwalker's post-doctoral studies at Stanford Medicine, where he studies mechanisms of oncogene addiction using CRISPR-mediated gene editing and potential therapies for MYC-driven lymphomas.

Talk Title: Codisruption of Epigenetic Drivers in MYC-Addicted T-ALL

**SESSION IB | DEVELOPMENT & DISEASE: GENOMIC & COMPUTATIONAL
APPROACHES**

FAES Classroom 6, Bldg. 10

Tuesday, September 12th, 2017 | 1:15-2:45 p.m.**Donald Glass II, MD, PhD**

Originally from the Bahamas, Dr. Donald Glass enrolled in the Medical Scientist Training Program at Baylor College of Medicine (BCM) in 1998. He received his Ph.D. in Human Genetics from BCM in 2005 and his M.D. from BCM in 2006. After finishing his internship at Cambridge Hospital in Massachusetts in 2008, Dr. Glass completed his residency training in dermatology and a postdoctoral fellowship in the McDermott Center (with Drs. Helen Hobbs and Jonathan Cohen) at the University of Texas Southwestern Medical Center (UTSW). He is currently an assistant professor in the Department of Dermatology at UTSW. Dr. Glass' main research interest is in understanding how keloids occur and in finding the genes that predispose people to develop keloids. Keloids occur disproportionately more often in skin of color, and the ability to develop keloids can be inherited within families. Dr. Glass is compiling a registry of individuals and families affected by keloids to collect samples and information for further study. His other research interest is identifying genes that cause rare skin disorders. Dr. Glass practices general dermatology and has an interest in genetic skin disorders.

Talk Title: Uncovering the Genetic Causes of Keloid Formation

SESSION IC | CELL SIGNALING & EPIGENETICS

FAES Classroom 7, Bldg. 10

Tuesday, September 12th, 2017 | 1:15-2:45 p.m.

Moderated By: Carl Hashimoto, PhD

Erik Rodriguez, PhD

Dr. Erik Rodriugez has pursued research in biological and chemical tool development to elucidate biology throughout his doctoral and postdoctoral training. In his doctoral work at California Institute of Technology with Dennis Dougherty and Henry Lester, Dr. Rodriugez developed orthogonal suppressor tRNAs to site-specific incorporation of multiple unnatural amino acids in vivo. He received broad training in chemical biology, biochemistry, and neurobiology. His postdoctoral work at University of California–San Diego with Dr. Roger Tsien enhanced his expertise to include the evolution and characterization of fluorescent proteins, fluorescence imaging, cell culture, and animal imaging. Dr. Rodriugez enjoys collaborating to gain knowledge in diverse fields and to ensure his tools are used. The newly evolved fluorescent protein is biophysically the brightest far-red fluorescent protein created so far, comparable to jellyfish-derived fluorescent proteins. Dr. Richard Ting from Weill Cornell Medical College and Dr. Rodriugez developed dual-modality imaging (near-infrared fluorescence and positron emission tomography) agents to image cancer, strokes, and cerebrospinal fluid in living mice, which will be tested in humans. His lab will continue to develop new fluorescent proteins, protein labeling tags, and tools for imaging human maladies.

Talk Title: A far-red fluorescent protein evolved from a cyanobacterial phycobiliprotein

Gregory A. Payne, MD, PhD

Dr. Gregory Payne is a physician scientist with specific interest in vascular disease and inflammation. He received his B.S. degree in chemistry from Yale University in 2005. He subsequently obtained his M.D. and Ph.D. in cardiovascular physiology while completing a Medical Scientist Training Program at Indiana University School of Medicine in 2011. As a graduate student, Dr. Payne worked in the laboratory of Jonathan Tune where he investigated the molecular mechanisms linking obesity and perivascular adipose tissue with early coronary artery disease. Dr. Payne joined the University of Alabama at Birmingham ABIM Research Pathway Program in 2011, and he has since completed a residency in internal medicine and a clinical fellowship in cardiovascular disease. Currently, Dr. Payne is completing his postdoctoral research in the laboratories of Amit Gaggar and J. E. Blalock where he studies novel inflammatory pathways in cardiovascular disease. His nationally recognized work aims to understand how extracellular matrix-derived chemokines contribute to vascular inflammation and endothelial dysfunction in several cardiovascular pathologies. In the future, Dr. Payne will continue to pursue his scientific and clinical interests as an independent investigator and general cardiologist.

Talk Title: The Role of Proline-Glycine-Proline in Cardiac Allograft Vasculopathy and Acute Rejection

SESSION IC | CELL SIGNALING & EPIGENETICS

FAES Classroom 7, Bldg. 10

Tuesday, September 12th, 2017 | 1:15-2:45 p.m.**Jaira Ferreira de Vasconcellos, PhD**

Dr. Jaira Ferreira de Vasconcellos has a bachelor's degree in biology from the University of Pernambuco, Brazil, and a master's degree in genetics from the Federal University of Pernambuco, Brazil. She received her Ph.D. in medical sciences from the University of Campinas, Brazil, with part of her thesis conducted at Beth Israel Deaconess Medical Center and Harvard Medical School. Her post-graduate training was performed at the University of Campinas Medical Genetics Department and at the National Institutes of Health (NIH) National Institute of Diabetes and Digestive and Kidney Diseases Genetics of Development and Disease Branch where she holds a research fellow position. Dr. Vasconcellos' research has mostly focused in the fields of hematology and oncology, and most of her experience and interest lies in cellular/molecular biology, RNA biology, genomics, and bioinformatics. Her recent work focuses on the regulation of fetal hemoglobin by RNA binding pathways to find new therapeutic approaches for patients with beta-hemoglobin disorders. She has received multiple awards, including the NIH Fellows Award for Research Excellence. Beyond her research career, Dr. Vasconcellos is passionate about mentoring and science education, where her most recent endeavors include teaching precision medicine at the Foundation for Advanced Education in the Sciences, mentoring students, and leading an RNA biology summer journal club at NIH.

Talk Title: The LIN28-let-7-IGF2BP axis regulates fetal hemoglobin in humans

Mariana P. Torrente, PhD

Dr. Mariana Torrente received dual bachelor degrees in chemistry and biochemistry (summa cum laude) from the Florida Institute of Technology in 2005 and her Ph.D. in chemistry in 2010 from Princeton University. As a graduate student, Dr. Torrente characterized human chromatin proteins and their modifications in the laboratory of Benjamin Garcia. After completing her doctoral thesis, Dr. Torrente joined the laboratory of Kent Vrana at the Pennsylvania State University College of Medicine where she aimed to understand tryptophan hydroxylase 2, receiving a National Institutes of Health (NIH) National Research Service Award F32 fellowship and becoming a neuroscience scholar. Following her time at Penn State, Dr. Torrente became an Institutional Research and Academic Career Development Awards PENN-Postdoctoral Opportunities in Research and Teaching fellow at the University of Pennsylvania in 2012. In the laboratory of James Shorter, Dr. Torrente investigated Hsp104, a molecular chaperone that disaggregates misfolded proteins and restores them to their normal structure/function. In 2015, Dr. Torrente won an NIH National Institute of Neurological Disorders and Stroke Advanced Postdoctoral Career Transition Award to Promote Diversity in Neuroscience Research (K22), and she established her own research program that blends epigenetics, molecular neurobiology, and protein folding as an assistant professor in the Brooklyn College–City University of New York (CUNY) Chemistry Department. In 2016, Dr. Torrente received the Feliks Gross award, CUNY's most important prize for assistant professors.

Talk Title: Distinct Histone Post-Translational Modifications Are Connected To Neurodegenerative Disease Proteinopathies

SESSION IC | CELL SIGNALING & EPIGENETICS

FAES Classroom 7, Bldg. 10

Tuesday, September 12th, 2017 | 1:15-2:45 p.m.**Caitlin Howe, PhD**

Dr. Caitlin Howe is a 2nd year postdoctoral fellow in the Department of Preventive Medicine at the University of Southern California. In 2016, she received her Ph.D. in environmental health sciences from Columbia University. As a Ph.D. student, Dr. Howe worked in Dr. Mary Gamble's lab to investigate nutritional influences on arsenic toxicity in Bangladeshi adults with a particular interest in epigenetic dysregulation. As a postdoctoral fellow, Dr. Howe continues to study the impacts of arsenic toxicity under the guidance of Dr. Shohreh Farzan, but with a focus on low-level exposures in U.S. populations. Currently, she is evaluating the impacts of arsenic and dietary B vitamins on inflammatory markers of cardiovascular disease in New Hampshire adults. Under the mentorship of Dr. Carrie Breton, Dr. Howe has also been leading several environmental epigenetics projects. In particular, she has been learning how to analyze whole-genome bisulfite sequencing data to evaluate the impact of environmental exposures, including prenatal tobacco smoke, on the newborn methylome. Dr. Howe has also been involved with the National Institutes of Health Pregnancy and Childhood Epigenetics (PACE) consortium through Dr. Breton, and she is currently leading a PACE epigenomic meta-analysis. In addition to her research, this past spring, Dr. Howe co-developed and taught a graduate-level environmental toxicology course.

Talk Title: Methylome changes in sorted cord blood CD4+ cells associated with prenatal tobacco smoke exposure

SESSION IIA | HEALTHCARE DISPARITIES: ISSUES OF ACCESS & RISKS

FAES Classroom 3, Bldg. 10

Tuesday, September 12th, 2017 | 3:00-4:30 p.m.

Moderated By: Lynn Morin

Adewole Adamson, MD, MPP

Dr. Adewole (Ade) S. Adamson is an assistant professor in the Department of Dermatology at the University of North Carolina School of Medicine. He is a proud graduate of Morehouse College, and he received his medical doctorate and master in public policy at Harvard. While in medical school, he spent a year at the National Institutes of Health the Clinical Research Training Program. He completed specialty training in dermatology at the University of Texas Southwestern in Dallas, TX. He is a health services researcher interested in improving the quality of care delivered to patients. He aims to understand patterns of health care utilization, including underuse and overuse, in dermatology. More specifically, he is interested in how effectively and efficiently the health care system delivers care to patients with skin cancer, the most common type of cancer in the United States. His long-term goal is to become an independent researcher who improves the quality of care delivered to skin cancer patients with a focus on identifying interventions that could improve outcomes, particularly among vulnerable populations.

Talk Title: Surgical delays in melanoma associated with insurance type

Dana Prince, PhD, MPH

Dr. Dana Prince earned her Ph.D. in social welfare from the University of Washington School of Social Work in 2014, her M.P.H. from the University of Pennsylvania in 2008, and her B.A. in women's studies from Oberlin College in 2002. Prior to joining the faculty at the Jack, Joseph, and Morton Mandel School of Applied Social Sciences at Case Western Reserve University, she completed her National Institutes of Health National Institute on Drug Abuse-funded T32 postdoctoral fellowship at the Yale School of Medicine in 2016. Her work is grounded in 6 years of practice experience in underserved communities where she developed, implemented, and evaluated school-based initiatives to address the health and mental health needs of low-income racial minority youth. She applies participatory methods and principles of youth engagement to develop prevention efforts that address the role of social inequalities in the development of health disparities among youth. Dr. Prince's research program seeks to investigate pathways to health and well-being among vulnerable adolescents and young adults, including low-income and system-involved youth. She is currently conducting a mixed-methods study of factors that hinder or promote well-being for older youth transitioning from foster care, including institutional- and community-based services and informal social supports.

Talk Title: Impact of Cumulative Risk on Homelessness for Youth Exiting Foster Care: Finding from the National Youth in Transitions Database

SESSION IIA | HEALTHCARE DISPARITIES: ISSUES OF ACCESS & RISKS

FAES Classroom 3, Bldg. 10

Tuesday, September 12th, 2017 | 3:00-4:30 p.m.**LaTrice Montgomery, PhD**

Dr. LaTrice Montgomery is an assistant professor in the University of Cincinnati (UC) College of Medicine Department of Psychiatry and Behavioral Neuroscience Addiction Sciences Division. Dr. Montgomery received her bachelors degree in psychology from Berea College and her masters and doctoral degrees in clinical psychology from UC. She completed her National Institutes of Health National Institute on Drug Abuse-sponsored clinical internship at Yale University School of Medicine Division of Substance Abuse. Dr. Montgomery's clinical and research interests have focused on improving prevention and treatment interventions for African American adolescents and adults who use substances. Her research primarily focuses on the co-use of marijuana and tobacco, especially through blunts, among African American young adults. She also serves on the editorial board of the Psychology of Addictive Behaviors Journal and Journal of Psychoactive Drugs, and she is the chair of the Cannabis Collaborative research group at UC.

Talk Title: Marijuana and Tobacco Co-Use among African American Young Adults

Mercedes M. Morales-Aleman, PhD

Dr. Mercedes Morales-Aleman is an assistant professor in the University of Alabama Department of Community and Rural Medicine. She earned her doctoral degree in ecological-community psychology from Michigan State University in 2011. From 2011 to 2013, she was a research fellow in the Centers for Disease Control and Prevention Division of HIV/AIDS Prevention Epidemiology Branch. From 2014 to 2016, she completed a T32 Health Services Outcomes and Effectiveness Research Training Fellowship at the University of Alabama at Birmingham (UAB) Division of Preventive Medicine. In June 2016, Dr. Morales-Aleman received a supplement to promote diversity by the National Center for Translational Science under the UAB's Center for Clinical and Translational Science. Her research focuses on community-based participatory approaches to health promotion among ethnic minority populations, particularly adolescent Latinas. Her long-term goals are to: (1) advance scientific understanding in the field of sexual health promotion and health care access among adolescent Latinas; (2) engage in work that translates sexual health promotion research among this group into evidence-based practice; and (3) develop theory-based, culturally relevant, multi-level intervention strategies to reduce health disparities among adolescent Latinas in the southern United States.

Talk Title: Sexual Healthcare Access among Adolescent Latinas in Alabama: Challenges and Opportunities for Health Promotion

SESSION IIA | HEALTHCARE DISPARITIES: ISSUES OF ACCESS & RISKS

FAES Classroom 3, Bldg. 10

Tuesday, September 12th, 2017 | 3:00-4:30 p.m.

Tamanna Tiwari, MPH, MDS, BDS

Dr. Tamanna Tiwari is an assistant professor in the Department of Community Dentistry and Population Health and Associate Director for the Center for Oral Disease Prevention and Population Health Research at the University of Colorado School of Dental Medicine. She earned her B.D.S. and M.D.S. at Bharati Vidyapeeth University in Pune, India, and her M.P.H. from New York University. She received K99/R00 grant funding from the National Institute of Dental and Craniofacial Research (2015-2020) for her research related to multilevel factors and strengths-based approaches associated with dental caries prevention. She is president of the International Association for Dental Research's Women in Science Network. She has presented her research and has been an organizer for several panels at conferences, including International/American Association for Dental Research, American Public Health Association, and National Oral Health Conference.

Talk Title: Maternal Factors Associated with Dental caries in Urban Latino Children

SESSION IIB | MICROBIAL PATHOGENESIS & INFECTIOUS DISEASE

FAES Classroom 6, Bldg. 10

Tuesday, September 12th, 2017 | 3:00-4:30 p.m.

Moderated By: Roger Stanton, PhD

Dennis Jones, PhD

Dr. Dennis Jones is an interdisciplinary biomedical scientist committed to translational research. Dr. Jones received his B.S. degree, magna cum laude, in biology from Morehouse College in 2006. In the fall of 2006, he started his graduate work in the Immunobiology Department at Yale University. Under the guidance of Dr. Wang Min, Dr. Jones' thesis research focused on characterizing the signal transduction pathways that mediate lymphangiogenesis in pathological settings. Dr. Jones was awarded his doctorate degree in 2012 and has been a postdoctoral fellow in the laboratory of Dr. Timothy Padera since August 2012. At Massachusetts General Hospital, Dr. Jones' current projects aim to elucidate the consequences of tumor cells metastasizing through the lymphatic system and the impact of pyogenic inflammation on lymphatic vessels. The goal of this research is to identify lymphatic-associated molecular targets that will lead to more effective treatment and ultimately improve the quality of life and overall survival for patients with disease.

Talk Title: Methicillin-resistant *Staphylococcus aureus* pathogenicity causes sustained lymphatic dysfunction

Felipe H. Santiago, PhD

Dr. Felipe Santiago-Tirado completed his undergraduate studies in Industrial Biotechnology at the University of Puerto Rico-Mayaguez. During this time, he was awarded a U.S. Department of Energy fellowship to work for a semester at the Pacific Northwest National Laboratory in Washington. There, his mentor encouraged him to apply to graduate school at Cornell University, where he joined the laboratory of Tony Bretscher and received his Ph.D. in molecular and cellular biology. During this time, he became interested in the field of host-pathogen interactions and wanted to apply his cell biological knowledge to infectious diseases. He joined the laboratory of Tamara Doering, where their favorite research topic is the biology of the fungal pathogen *Cryptococcus neoformans*, a yeast that causes fatal meningitis. He currently studies how the interactions between this fungus and host cells influence the pathogenesis and outcome of infection. For example, he recently directly showed that *Cryptococcus* can use host phagocytes as Trojan horses to cross the blood-brain barrier and infect the brain. He aims to develop a line of research relevant to public health because of the disease caused by this fungus, but also to use the fungus as a tool to gain new insights into important aspects of host cellular biology.

Talk Title: How *Cryptococcus neoformans* crosses cellular barriers

SESSION IIB | MICROBIAL PATHOGENESIS & INFECTIOUS DISEASE

FAES Classroom 6, Bldg. 10

Tuesday, September 12th, 2017 | 3:00-4:30 p.m.**Milena Gianfrancesco, PhD, MPH**

Dr. Milena Gianfrancesco graduated from Brown University with a degree in neuroscience. She was drawn to research and the field of epidemiology through her experience as a clinical research coordinator. She went on to pursue an M.P.H. from Yale University, focusing on chronic disease epidemiology, and was motivated to continue her studies in a doctoral program. As a Ph.D. student at the University of California (UC)–Berkeley, her research focused on the genetic epidemiology of autoimmune diseases, such as multiple sclerosis and systemic lupus erythematosus. In 2016, Dr. Gianfrancesco began a postdoctoral position at UC San Francisco in the Division of Rheumatology. Her current research focuses on big data, such as electronic medical records and genetic databases and the use of machine learning to study adverse events in individuals prescribed high-risk immunosuppressive medications. She was recently awarded a National Institutes of Health F32 postdoctoral fellowship to support this work over a period of 3 years, as well as a 1-year preceptorship award from the Rheumatology Research Foundation. Her career goal is to incorporate cutting-edge statistical methods to the field of epidemiology and take advantage of big data to further the understanding of risk factors as they relate to rheumatologic and autoimmune disease onset and activity. She hopes to continue to study the epidemiology of these diseases to improve public health as medicine moves towards a more precision-based approach.

Talk Title: Performance of machine-learning methods using electronic medical records to detect and predict a clinical infection

Mohamed Abdel-Mohsen, PhD

Dr. Mohamed Abdel-Mohsen's research focuses on diverse aspects of HIV pathogenesis, including HIV latency, host-virus interactions, intrinsic immunity, and HIV sequence diversity. He has published over 27 peer-reviewed papers in the last few years that reflect diverse interests in the field of HIV biology, ranging from the iPrEx study to his work in the Delaney AIDS Research Enterprise to Cure HIV and Sustainable East Africa Research of Community Health Global studies to his work describing host intrinsic immune mechanisms relevant to HIV pathogenesis and persistence in vivo. He received a Centers for AIDS Research Early-Career Award of Excellence in Basic Science in 2015. He joined the Wistar Institute as an assistant professor in 2017, after completing his Ph.D. and postdoctoral training at the University of California–San Francisco and the Blood Systems Research Institute, where he was subsequently appointed as a research scientist. Previously, Dr. Abdel-Mohsen was a virologist for the World Health Organization Regional Reference Laboratory for poliovirus in his home country, Egypt. At Wistar, he is investigating the role of host-virus interactions in persistence and immunopathogenesis of HIV infection by combining virological, glycobiological, and immune-based basic and translational research.

Talk Title: How Breaking the Sugar Code of HIV Persistence

SESSION IIB | MICROBIAL PATHOGENESIS & INFECTIOUS DISEASE

FAES Classroom 6, Bldg. 10

Tuesday, September 12th, 2017 | 3:00-4:30 p.m.

Norberto Gonzalez-Juarbe, PhD

Dr. Norberto Gonzalez-Juarbe is a senior postdoctoral fellow at the University of Alabama at Birmingham Department of Microbiology. Born and raised in Puerto Rico, he received his B.S. in microbiology from the University of Puerto Rico at Arecibo while researching the habitability of primary producers in the field of astrobiology. At the University of Texas Health–San Antonio, he worked towards a Ph.D. in microbiology and immunology under the supervision of Dr. Molly A. Bergman. His dissertation focused on the development and characterization of a novel *Serratia marcescens* hemorrhagic pneumonia model and its use to determine the virulence determinants responsible for disease. He established that bacterial pathogens use pore-forming toxins to deplete the lungs of alveolar macrophages through necroptosis (programmed necrosis). After joining the Orihuela laboratory as a postdoctoral fellow, Dr. Gonzalez-Juarbe focused in the study of *Streptococcus pneumoniae*-induced cardiac damage during invasive pneumococcal disease. Moreover, he is expanding his graduate work on how bacterial pore-forming toxins cause cell death and the immunological implications of these mechanisms.

Talk Title: Caspase activation simultaneous to non-canonical necroptosis promotes inflammation during bacterial pneumonia

SESSION IIC | CARDIOVASCULAR & NEURAL DISORDERS: NEW APPROACHES

FAES Classroom 7, Bldg. 10

Tuesday, September 12th, 2017 | 3:00-4:30 p.m.

Moderated By: Mercedes Rubio, PhD

Kim-Lien Nguyen, MD

Dr. Kim-Lien Nguyen is an assistant professor of medicine at the University of California–Los Angeles (UCLA) and VA Greater Los Angeles Healthcare System and a faculty member in the UCLA Physics and Medicine Interdepartmental Graduate Program. She is the founding director of the Cardiovascular MRI Program at VA Greater Los Angeles. Dr. Nguyen served as a resident at Johns Hopkins and was a cardiology fellow at UCLA. She completed an MRI/CT fellowship in the National Institutes of Health National Heart, Lung, and Blood Institute Cardiovascular Imaging Section under Dr. Andrew Arai. She continued her imaging research at UCLA in the laboratories of J Paul Finn and Peng Hu. Her long-term professional goal is to leverage MRI technology to improve the early diagnosis and monitoring of patients with cardiovascular disease. She has focused on making state-of-the-art cardiovascular imaging accessible to veterans. As an early-stage investigator, her research focuses on the use of ferumoxytol as an alternative to gadolinium for diagnostic cardiovascular MRIs. She developed a multicenter safety registry for ferumoxytol-enhanced MRIs and validated the use of FE-MRI in congenital heart disease and vascular mapping. To establish research independence, Dr. Nguyen is building a ferumoxytol MRI research program centered at the intersection of cardiology, oncology, and biomedical imaging to address the role of microvascular function in myocardial remodeling.

Talk Title: Ferumoxytol Enhanced Magnetic Resonance Imaging for Patient-Specific Cardiovascular Applications

Wenndy Hernandez, MS, PhD

Dr. Wenndy Hernandez is committed to deciphering the molecular mechanisms underlying complex human diseases, particularly those that disproportionately afflict under-represented minorities. She obtained an M.S. in human genetics from Howard University and a Ph.D. in cancer biology from the University of Chicago. Her research has provided her with a broad understanding of the molecular, genetic, and pathological aspects of cancer necessary for the identification of genetic variants in prostate cancer risk. In her postdoctoral research, she began research in pharmacogenomics, which led to an algorithm for predicting therapeutic warfarin dose for African Americans. This algorithm outperformed the most widely used algorithm and standard clinical practice for dosing African Americans, and it is currently being implemented in a pilot clinical study at the University of Chicago. Dr. Hernandez is the recipient of several prestigious awards, including the University of Chicago Morton Arnsdorf Cardiovascular Research Day Award and the Presidential Trainee Award from the American Society for Clinical Pharmacology and Therapeutics for her research in venous thromboembolism risk in African Americans. Her current research integrates advanced quantitative and computational methods and tools that use large-scale data to determine the underlying molecular mechanisms of ischemic and hemorrhagic stroke in African Americans and develops predictive models. Dr. Hernandez's goal is to reduce and ultimately eliminate disparities in cardiovascular disease incidence, morbidity, and mortality in African Americans through research to enhance patient treatment by identifying molecular determinants.

Talk Title: Using pharmacogenomic genotyping data to define genetic ancestry in patients and enable population-specific pharmacogenomic implementation

SESSION IIC | CARDIOVASCULAR & NEURAL DISORDERS: NEW APPROACHES

FAES Classroom 7, Bldg. 10

Tuesday, September 12th, 2017 | 3:00-4:30 p.m.

Clare Harrop, PhD

Dr. Clare Harrop is a developmental psychologist specializing in understanding the female phenotype of autism spectrum disorder (ASD) through a combination of behavioral and physiological methods. She completed her Ph.D. in the United Kingdom as part of the Preschool Autism Communication Trial where her research focused on developmental trajectories of play and restricted and repetitive behaviors in ASD. Following her Ph.D., Dr. Harrop coordinated the first prodromal intervention for infants at risk of ASD, which was featured in the 2015 Interagency Autism Coordinating Committee Summary of Advances. She continued this research at UCLA's Center for Autism Research and Treatment under the mentorship of Dr. Connie Kasari, focusing on the behavioral female phenotype of ASD and the impact of early intervention on ASD core deficits. She is currently a postdoctoral fellow in the University of North Carolina–Chapel Hill School of Medicine where her research uses innovative eye tracking approaches to inform the diagnosis, treatment, and prognosis of ASD females. Her long-term goal is to understand how biological sex influences the complex interplay between brain and behavior and synthesize data from multiple sources to develop targeted and personalized treatments for females on the spectrum.

Talk Title: Understanding Social Motivation and Attention in Females with Autism Spectrum Disorder

Ellen Terry, PhD

"Dr. Ellen Terry graduated from the University of Texas at Arlington with B.A. (honors) in psychology in 2008. She completed her M.A. in 2010 and Ph.D. in 2015 in clinical psychology from the University of Tulsa. In 2014-2015, she completed her clinical internship at University of Oklahoma Health Sciences Center. After obtaining a Ph.D., Dr. Terry secured a position as a post-doctoral research fellow at the University of Florida, supported by an National Institutes of Health-funded T32, with a training focus on integrating research in pain and aging. Dr. Terry's research experience involves the use of psychophysiological assessment techniques (e.g., electrocardiography, skin conductance, electromyography) to investigate the influence of emotion on pain and nociceptive processing in various clinical (e.g., fibromyalgia, major depressive disorder) and healthy, pain-free populations. Her research experience also involves investigating how psychosocial variables (e.g., pain catastrophizing, negative affect, anxiety sensitivity) alter pain processing. Dr. Terry's current research interests involve identifying the neural mechanisms by which pain catastrophizing influences the experience of pain. Moreover, she aims to further extend her research by exploring the impact of catastrophizing on pain and its underlying neural mechanisms among different ethnic groups with chronic pain associated with knee osteoarthritis."

Talk Title: The effect of experimental reduction of pain catastrophizing on pain perception, nociceptive flexion reflex, and temporal summation of the nociceptive flexion reflex as verified by mediation analyses